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REMARKS

By this supplemental amendment, claims 1, 13, and 14 have been amended; claims 2-12 and 15-19 continue unamended; claim 20 was previously withdrawn; and claim 21 has been added. This amendment is in response to an interview with the Examiner on August 14, 2003 (for which the Applicants thank the Examiner). The arguments presented herein are intended to be used in conjunction with the arguments of the previously filed response.

During the interview, the Applicants indicated that the Applicants would further amend independent claims 1 and 14 to recite encoders which separately encode non-realtime and realtime content into slices. In addition, the Examiner inquired about the type of information the Applicants considered non-realtime content and realtime content. Examples of realtime content include, but are not limited to, broadcast video and audio programs (see Applicants' FIG. 1, element indicated by leadline 120). Examples of non-realtime content include, but are not limited to, interactive program guide content and stored imagery (see Applicants' FIG. 1, element indicated by leadline 102).

REJECTIONS UNDER 35 U.S.C. §103

The Examiner rejected claims 1-9, 11, 12, 14-16, and 19 as being unpatentable over Naimpally (U.S. Patent No. 5,619, 337, issued April 8, 1997) in view of Yanagihara (U.S. Patent No. 5,859,949, issued January 12, 1999); claims 10, 17, and 18 as being unpatentable over Naimpally in view of Yanagihara and further in view of Adams (U.S. Patent No. 6,044,396, issued March 28, 2000); and claim 13 as being unpatentable over Naimpally in view of Yanagihara and further in view of Alexander (U.S. Patent No. 6,177,931, issued January 23, 2001). Applicants traverse the rejection.

A. Claims 1-9, 11, 12, 14-16, and 19

The Examiner rejected claims 1-9, 11, 12, 14-16, and 19 as being unpatentable over Naimpally in view of Yanagihara. Applicants traverse the rejection.

Applicants have provided explanations of the teachings of Naimpally and Yanagihara in the previously filed Response. Those explanations are also applicable with respect to this Supplemental Response. As such, and for brevity, Applicants will not repeat those explanations. Applicants direct the Examiner's attention to the fact that

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both Naimpally and Yanagihara are silent with respect to slice base encoding and using separate realtime and non-realtime encoders for slice encoding of realtime and non-realtime content respectively.

Applicants' independent claims 1 and 14 recite:

1. An apparatus for encoding realtime and non-realtime contents, the apparatus comprising:

a first encoder configured to encode non-realtime content into encoded non-realtime content slices;

a second encoder configured to encode the realtime content into encoded realtime content slices;

a remultiplexer configured to repacketize the encoded non-realtime content slices and the encoded realtime content slices into transport packets; and

a re-timestamp unit coupled to the remultiplexer and configured to provide timestamps to be applied to the transport packets in order to synchronize realtime and non-realtime content.

14. A method for encoding realtime and non-realtime contents, comprising:

encoding realtime content to generate encoded realtime content slices;

encoding non-realtime content to generate encoded non-realtime content slices;

repacketizing the encoded realtime content slices and the encoded non-realtime content slices into transport packets; and

re-timestamping the transport packets with new timestamps in order to synchronize the realtime and non-realtime content.

In addition to the explanation of Applicants' invention provided in the previous Response, Applicants further submit that Applicants' apparatus and method (as recited in Applicants' claims 1 and 14, respectively) separately encode a realtime content and non-realtime content into slices.

Neither Naimpally nor Yanagihara teach or suggest modification of their respective arrangements to provide separate encoders for slice base encoding of realtime content and non-realtime content. In addition, Applicants respectfully submit that there is no suggestion by either Naimpally or Yanagihara to combine the two references. As such, Naimpally and Yanagihara, either individually or combined, do not produce an apparatus or method having Applicants non-obvious features.

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As such, Applicants submit that claims 1 and 14 are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. In addition, dependent claims 2-9, 11, and 12 (which depend either directly or indirectly upon independent claim 1); and 15, 16, and 19 (which depend either directly or indirectly upon independent claim 14) are allowable at least for their dependency upon an allowable base claim. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-9, 11, 12, 14-16, and 19.

B. Claims 10, 17, and 18

The Examiner rejected claims 10, 17, and 18 as being unpatentable over Naimpally in view of Yanagihara and further in view of Adams. Applicants traverse the rejection.

For the reasons presented above, Applicants submit that neither Naimpally nor Yanagihara teach or suggest separately encoding non-realtime and realtime content into respective non-realtime and realtime slices. As such, dependent claim 10 (which depends indirectly upon independent claim 1); and claims 17 and 18 (which depend indirectly upon independent claim 14) are not obvious over Naimpally in view of Yanagihara. The addition of Adams does not correct the deficiencies of Naimpally and Yanagihara.

Applicants have presented an explanation of the operation of Adams in the previously filed response. As such, and brevity, Applicants will not repeat the explanation of Adams.

Applicants submit that claims 10, 17, and 18 are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Therefore, the Applicants respectfully request reconsideration and withdrawal of the obviousness rejection of claims 10, 17, and 18.

C. Claim 13

The Examiner rejected claim 13 as being unpatentable over Naimpally in view of Yanagihara and further in view of Alexander. Applicants traverse the rejection.

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Naimpally and Yanagihara do not render Applicants' claim 13 obvious, at least for its dependency upon non-obvious claim 1. The addition of Alexander does not correct the deficiencies of Naimpally and Yanagihara.

Alexander discloses a method of providing interactive capabilities (i.e., more control over) for electronic programming guides ("EPG"). For example, Alexander provides parental control of the EPG and control of future-schedule programming. As such, the purpose of Alexander's invention is different than the purpose of Applicants' invention.

As previously discussed, Applicants' claim 1 separately slice encodes realtime content and non-realtime content so that the encoders may be optimized for more efficient encoding of their respective content. In addition, Applicants' claim 13 further recites that the realtime content slices and non-realtime content slices are re-timestamped by a re-timestamp unit for synchronization of display. Specifically, Applicants' claim 13 recites:

"The apparatus of claim 1, wherein realtime and non-realtime contents intended to be displayed in a single frame are re-timestamped by the re-timestamp unit for synchronization such that the contents are decoded and presented in the same frame."

However, Alexander is silent with respect to separate encoding of realtime content and non-realtime content into respective slices. In addition, Alexander is silent with respect synchronizing (by re-timestamping) the realtime content slices and non-realtime content slices intended for display in the same frame. Further, as mentioned above, Alexander does not address the same problem addressed by the Applicants. Therefore, at least for these reasons Alexander does not render Applicants' claim 13 obvious.

In addition, there is not suggestion to combine Naimpally, Yanagihara, and Alexander. However, presuming arguendo that the references were combined, they would not result in a system or method containing the features of Applicants' claim 13. Applicants respectfully submit that Naimpally, Yanagihara, and Alexander either individually or in any combination do not render Applicants' claim 13 obvious.

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As such, the Applicants submit that claim 13 is not obvious and fully satisfies the requirements under 35 U.S.C. §103 and is patentable thereunder. Therefore, the Applicants respectfully request reconsideration and withdrawal of the obviousness rejection of claim 13.

CONCLUSION

Thus, the Applicants submit that none of the claims, presently in the application, is obvious under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall, Esq. or Frank Tolin, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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